

**Notice of Allowability**

Application No.

10/799,027

Applicant(s)

WALKER, FREDERICK HERBERT

Examiner

Michael J. Feely

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to filing on March 12, 2004.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 0304.0704
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Michael J. Feely  
Primary Examiner  
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## DETAILED ACTION

### *Pending Claims*

Claims 1-24 are pending.

### *Allowable Subject Matter*

1. Claims 1-24 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Each of the independent claims is drawn to a method of preparing a polymeric polyol by copolymerizing the following reactants in the presence of and acid:

- (a) a multifunctional epoxide resin;
- (b) tetrahydrofuran (THF); and
- (c) water;

wherein: (1) the amount of water is sufficient to avoid gelation of the polymeric polyol; and (2) the copolymerization is not conducted in the form of an aqueous emulsion polymerization or aqueous dispersion polymerization (*see: claims 1, 11 & 19; and page 5, lines 5-8 of the Specification*).

The closest prior art is commonly owned Walker et al. (US Pat. No. 6,800,717). They disclose a similar polymerization process (*see claims and Examples*), wherein a multifunctional epoxide resin is copolymerized with water in the presence of a solvent and an acid. They do not contemplate the use of THF as their solvent (*see column 12, lines 21-23*). They only employ THF in the process when the reaction between the multifunctional epoxide and water is essentially complete (*see examples 1 & 17*). The presence of THF at this stage of the process may lead one to believe that a small degree of copolymerization may have inherently taken place

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between the multifunctional epoxide, THF, and water. However, Walker et al. immediately neutralize the system once the reaction product of the multifunctional epoxide and water is diluted with THF (*see example 1 & 17*). Due to this *immediate neutralization*, one skilled in the art would not have expected such a copolymerization reaction of (a), (b), and (c) to take place.

As mentioned by Applicants (*see page 4 of the Specification*), Lidark et al. disclose a similar process; however, their process results in a gelled/solidified reaction product.

Brueschweiler et al. (US Pat. No. 3,004,931) disclose a similar gelled/solidified reaction product as well.

The prior art also discusses hydroxy-polyethers, which are used in the formation of polyurethanes. Nachtkamp et al. (US Pat. No. 4,728,542) (*see column 4, line 65 through column 5, line 16*) and Weber et al. (US Pat. No. 4,687,830) (*see column 5, lines 49-57*) both disclose the use of these hydroxy-polyethers in the formation of polyurethane coatings. However, these materials are made from monofunctional epoxides – not *multifunctional* epoxides.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

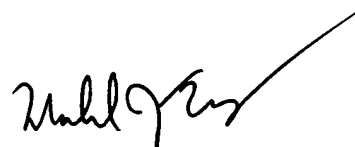
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*Communication*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael J. Feely  
Primary Examiner  
Art Unit 1712

April 3, 2006

**MICHAEL FEELY**  
**PRIMARY EXAMINER**